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## CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence and any documents indicated as being enclosed therein are being faxed to the Board of Patent Appeals and Interferences at 703-308-7953 on:

Date:

March 8, 2001  
Printed Name: Stephanie Klepp

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

YI-SHUNG CHAUG, et al.

Serial No.: 09/310,800

Filed: May 12, 1999

For: METHOD AND APPARATUS FOR SECURING A THIN FILM  
MAGNETIC TAPE HEAD CLOSURE

Group Art Unit: 2754

Examiner: R. Tupper

Attorney Docket No. 96-017-TAX

## APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Board of Patent Appeals and Interferences  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This is a brief in support of an appeal from the final rejection of Claims 1, 3-6, 8-10, and 19-29 in the final Office Action mailed on October 17, 2000.

## I. Real Party in Interest

The real party in interest is Storage Technology Corporation, a corporation organized and existing under the laws of the state of Delaware, and having a place of business at Louisville, Colorado.

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## II. Related Appeals and Interferences

There are no other appeals or interferences known to the Applicants, the Applicants' legal representative, or the Assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

## III. Status of Claims

Claims 1, 3-6, 8-14, and 16-30 are pending in this application. Claims 1, 3-6, 8-10, and 19-29 (reproduced for reference in the attached Appendix) are finally rejected and on appeal. Claims 11-14, 16-18 and 30 have been withdrawn from consideration as being drawn to a non-elected invention.

## IV. Status of Amendments

There are no amendments filed subsequent to the final rejection.

## V. Summary of Invention

A multi-element magnetic head that reads and writes to a medium. A thin film layer deposited on a substrate comprises a plurality of recording elements that are operable for such reading and writing. To advantageously improve bonding of various head components, a plurality of gluing vias are formed between the substrate and a closure, and interspersed amongst the plurality of recording elements.

As preferably shown in Figure 1, a cross section of the magnetic head 10 comprises a substrate 14 and closure 12 separated by gap 15 (Specification page 3, lines 28-29). For purposes of illustration, Figure 2 shows closure 12 separated from substrate 14, revealing a thin film layer 21, deposited on substrate 14, comprising read tracks 28 and write tracks 29 (Specification page 4). Bonding the substrate and closure of Figure 2 results in poor bonding, as described at Specification page 5, lines 1-19. Referring to Figures 3 & 4, the present invention adds gluing vias 31 on surface 18 and/or 19 to improve adhesive flow from C-core 22 between surfaces 18 and 19 (Specification, page 5, lines 20-21). Gluing vias 31 enhance the adhesive flow through capillaries between surfaces 18 and 19, resulting in a substantial increase in the adhesive wicking area. Gluing vias 31 make bond strength less dependent on the surface topology of recording module 14 (Specification page 5, lines 21-24). This is particularly

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important when the thickness difference between the read elements and write elements is small, which reduces capillary action of the bonding adhesive (Specification page 5, lines 7-19).

#### VI. Issue

A. Whether the Examiner has properly rejected Claims 1, 3-6, 8-10, and 19-29 under 35 U.S.C. § 102(b) as being anticipated by Tsutake (U.S. Patent No. 5,022,140).

#### VII. Grouping of Claims

Claims 1, 3-6, 8-10, and 19-29 do not stand or fall together, and Applicant considers the following groups of claims to be separately patentable.

Group I	Claims 1 3, 4, 6, 8, 9, 19-21 and 24-29
Group II	Claims 5, 10
Group III	Claims 22, 23

The claims of Group II are shown to be separately patentable by reciting gluing vias that are photolithographically defined and subsequently trenched on side surfaces.

The claims of Group III are shown to be separately patentable by reciting gluing vias trenched on one surface (e.g. closure or substrate) and absent from the other surface (e.g. substrate or closure).

#### VIII. Argument

Appellant shows error in the rejection of Claims 1, 3-6, 8-10, and 19-29 under 35 U.S.C. § 102(b) as being anticipated by *Tsutaki* (U.S. Patent No. 5,022,140) as follows.

A patent is invalid for anticipation when the same device or method, having all of the elements and limitations contained in the claims, is described in a single prior art reference. Richardson v. Suzuki Motor Co., 868 F.2d at 1236, 9 USPQ2d at 1920; Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 894, 221 USPQ 669, 673 (Fed. Cir. 1984). An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of the invention. See In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); Diversitech Corp. v. Century Steps, Inc., 850 F.2d 1566, 1567, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988). Appellant shows that the cited reference does not teach a multi-recording element head assembly that is operable for either reading or writing to a medium, as claimed.

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Hence, the cited reference does not anticipate the claimed invention, since it does not describe all of the elements and limitations contained in the claims.

As can be seen by *Tsutaki*'s Figure 2A-2E and 3A-3F, this structure is an intermediate (i.e. not completed or operational) magnetic core structure that is not operable for either reading or writing to a medium. The patent itself refers to this structure as a magnetic core, and not a magnetic head assembly (*Tsutaki* Col. 4, line 62; Col. 5, lines 44-50)). This intermediate structure is subsequently cut along the dotted lines into a number of single element heads, a representative one being shown in Figure 1 (*Tsutaki* Col. 4, line 65 through Col. 5, line 2; Col. 6, lines 22-26). It is only after the magnetic core has been cut that it is operable to read and write from a medium. Once cut, and operational, the single element head does not read on the claimed invention. For example, referring to the operable structure depicted in *Tsutaki* Figure 1, there is no teaching or description of (1) "a thin film layer comprising a plurality of recording elements operable for at least one of reading from and writing to the medium", or (2) "a plurality of gluing vias formed between said substrate and said closure and interspersed amongst said plurality of recording element". At best, the cited reference teaches a single element head that is operable to either read or write to a medium. As every element of the claimed invention is not taught by this reference, it does not anticipate the claimed invention. Hence, Claim 1 is shown to have been erroneously rejected under 35 U.S.C. 102(b) as being anticipated by *Tsutaki* (U.S. patent 5,022,140).

The Examiner states that the multiple head block shown in figures 3A-3F is operable for either reading or writing. This cannot be so, as this is an intermediate core structure that is only partially constructed. As described above, it is subsequently cut up into a plurality of single element heads. Further, any attempt to use this structure to read and write a medium would be non-functional, as the adjoining structures would short one another out. Thus, the intermediate structure of Figures 3A-3F is shown to not be operable for either reading or writing to a medium, as claimed. Thus, the specific claimed structure of a multi-element magnetic head that is operable for reading or writing to a medium is not taught. Hence, *Tsutaki* does not anticipate the overall claimed apparatus, and the claims have been erroneously rejected.

Further with respect to Group II (Claims 5 and 10), the cited reference does not teach the claimed step of "wherein said gluing vias are photolithographically defined and subsequently trenched on said side surfaces". The cited reference merely states that regulation grooves "are formed", without describing how (*Tsutaki* Col. 3, lines 59-61; Col. 6, lines 5-21).

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Further with respect to Group III (Claims 22 and 23), the cited reference does not teach the claimed element of gluing vias trenched on one surface (closure or substrate) and absent from the other surface (substrate or closure).

#### IX. Summary

It is respectfully submitted that Claims 1, 3-6, 8-10, and 19-29 have been erroneously rejected by the Examiner, and such rejection should be reversed, and such claims allowed.

Respectfully submitted,  
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